

IMPROVING LOCAL AND STATE AGENCY RESPONSE TO TERRORIST INCIDENTS INVOLVING BIOLOGICAL WEAPONS



Prepared in response to the Nunn-Lugar-Domenici Domestic Preparedness Program by the Department of Defense, September 12, 2000



ACKNOWLEDGEMENT

The Department of Defense wishes to thank the Department of Health and Human Services, the Centers for Disease Control and Prevention, the Federal Emergency Management Agency, the Federal Bureau of Investigation, the Environmental Protection Agency, the Department of Energy, and the Department of Agriculture for their assistance in the development of this document.

Comments and suggestions relating to response concepts contained herein are welcome and should be directed to Dr. Richard Hutchinson or Mr. James Church, U.S. Army Soldier and Biological Chemical Command, Domestic Preparedness Office, 5183 Blackhawk Road, Aberdeen Proving Ground, MD 21010-5424. Dr. Hutchinson: telephone 410-436-3382, e-mail: richard.hutchinson@sbccom.apgea.army.mil; Mr. Church: telephone 410-436-5686, e-mail: james.church@sbccom.apgea.army.mil

Disclaimer

The contents in this planning guide are not to be construed as an official Department of the Army position unless so designated by other authorizing documents.

TABLE OF CONTENTS

INTRODUCTION	2
BW IRP RESPONSE TEMPLATE COMPONENTS	
1. MEDICAL SURVEILLANCE	6
2. MEDICAL DIAGNOSIS	7
3. EPIDEMIOLOGICAL INVESTIGATION	8
4. CRIMINAL INVESTIGATION	9
5. MASS PROPHYLAXIS	10
6. RESIDUAL HAZARD ASSESSMENT AND MITIGATION	12
7. CONTROL OF AFFECTED AREA/POPULATION	12
8. MEMS (MODULAR EMERGENCY MEDICAL SYSTEM) SYSTEM – CARE OF PRESENTED CASUALTIES AND WORRIED WELL	14
9. FATALITY MANAGEMENT	18
10. EMERGENCY MANAGEMENT OPERATIONS	19
11. RESOURCE AND LOGISTIC SUPPORT	20
12. CONTINUITY OF INFRASTRUCTURE	21
13. FAMILY SUPPORT SERVICES	22
IMPLEMENTATION	23
CONCLUSION	26
POINTS OF CONTACT FOR PLANNING ASSISTANCE	27

INTRODUCTION

In the past few years, American citizens have been forced to realize that terrorism is a real threat to our nation at home and is not limited to overseas incidents. Because of terrorist acts such as the Oklahoma City and World Trade Center bombings, domestic terrorism is increasingly on people's minds. However, terrorist activities are no longer limited to just detonating conventional bombs. The threat of biological terrorism has become a growing concern in the last few years. In response to this concern, the 104th Congress passed Public Law 104-201, Title XIV – The Defense Against Weapons of Mass Destruction Act of 1996, which not only provided the nation's first responders with training, equipment and exercises regarding emergency response to weapons of mass destruction (WMD), but also required that the Secretary of Defense develop and carry out a program *to improve the responses of federal, state, and local agencies to emergencies involving biological and chemical weapons*. As a result, the Department of Defense developed the Biological Warfare Improved Response Program, inviting the Departments of Health and Human Services (HHS), Energy (DOE), Agriculture (USDA), the Federal Emergency Management Agency (FEMA), the Federal Bureau of Investigation (FBI) and the Environmental Protection Agency (EPA), as well as emergency responders and managers from multiple states and local communities to participate.

According to experts from local communities, states, and the federal government, a biological terrorist attack could quickly overwhelm a community's or state's emergency resources. What can a state or local office of emergency management, public health department or other departments do to bring order to this chaos? This planning guide can be a first step in helping your com-

munity look at your current Emergency Operations Plans (EOPs) and Standard Operating Procedures (SOPs). Using the principles from this guide, your community can begin a conversation to incorporate additional planning actions so that you can respond effectively and quickly to a terrorist incident involving biological weapons.

Biological Weapons Improved Response Program

The BW IRP's purpose is to identify, evaluate, and demonstrate the best practical approaches to improve response to terrorist incidents involving biological weapons (BW). The approaches developed by the BW IRP should be used by communities as a starting point to design and develop their own "best practical approaches."

The BW IRP, led by the U.S. Army Soldier and Biological Chemical Command (SBCCOM), is a multi-year, multi-agency effort initiated in April 1998. The initial program team was composed of over 60 federal and state experts, local responders and technical experts. The team completed an assessment of the BW response problem and formulated an integrated approach to BW emergency response. This approach is summarized in the BW Response Template.

Biological Weapons Response Template

The BW Response Template embodies the concepts and specific activities that a state or local community might consider in evaluating or refining their own BW terrorist or emergency preparedness plans. The template can be used by any local community or state government as a starting point to formulate its own plans, protocols and preparations for responding to a BW incident or a major natural disease outbreak.

The template is organized into a work breakdown structure of major types of response activities. These are organized into groups that are referred to as the 13 components of the BW Response Template. Together, these components represent an integrated response system. The 13 components of the generic BW Response Template are categorized into operational decisions addressing three phases of response:

- Continuous surveillance
- Active investigation
- Emergency response

See Figure 1- BW Response Template Components and Key Decisions. All 13 components are briefly described in this planning guide.

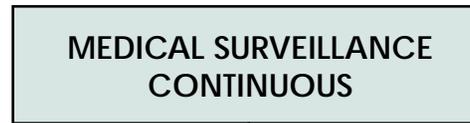
The BW Response Template addresses both Crisis and Consequence Management. Crisis Management primarily is a law enforcement function that focuses on the measures taken to identify and plan for the resources necessary to anticipate, prevent and/or resolve a terrorism threat or incident. The FBI is the lead federal agency for Crisis Management. The focus of Consequence Management includes measures to protect public health, rescue and medical treatment of casualties, evacuation of people at risk, protection of first responders and preventing the spread of contamination. It also focuses on restoring essential government services and providing emergency relief to government, businesses and individuals affected by the consequences of terrorism. FEMA is the lead federal agency for Consequence Management.

In order to respond effectively to an unannounced bioterrorist attack, local medical personnel will need to have the tools and

training to quickly detect unusual medical symptoms in the local population. These symptoms may include slight changes in reported illnesses, many of which appear early on as normal flu symptoms. Thus, as much as possible, response planning should include measures to facilitate detection and identification of potential BW disease outbreaks at the earliest moment and administration of appropriate medical prophylaxis to avoid disease in exposed victims. Response planning also should be geared to manage the onset of casualties so that all are dealt with in a supportive and non-chaotic manner. The planned response systems should have the capability to deal with high numbers of fatalities as well. Lastly, response planning also should facilitate the mobilization of the myriad of resources necessary to help deal with a major BW attack.

The BW Response Template is presented here in brief, but is available in detail in the *1998 Summary Report on BW Response Template and Response Improvements, Volumes 1 & 2*. This summary report is available to state and local government agencies through the Domestic Preparedness Helpline (see the last section in this guide titled "Points of Contact for Planning Assistance"). It contains not only the details of the Response Template, but also the proposed timelines and projected personnel and material resources needed for each response activity. The summary report also includes the five different attack scenarios the team analyzed. The scenarios, developed by BW experts to be technically credible, were selected in order to develop practical approaches to improve BW domestic preparedness. They cover a range of possible agents, attack targets and numbers of casualties.

Continuous Surveillance

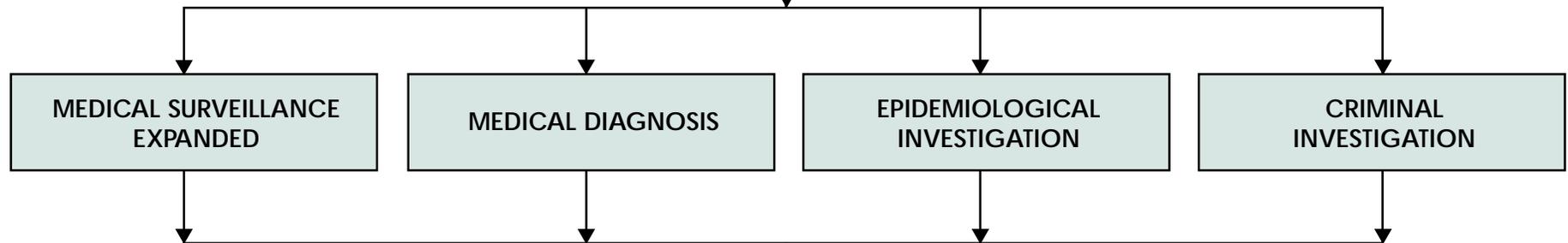


Results

1. Decide that unusual event has occurred

Activate

Active Investigation



Results

2. Decide that major health event is occurring

3. Decide on potential cause and population at risk

4. Decide on medical prophylaxis and treatment measures

Activate

5. Decide on appropriate activation of modular emergency medical system and other response functions

Key Decisions

Emergency Response

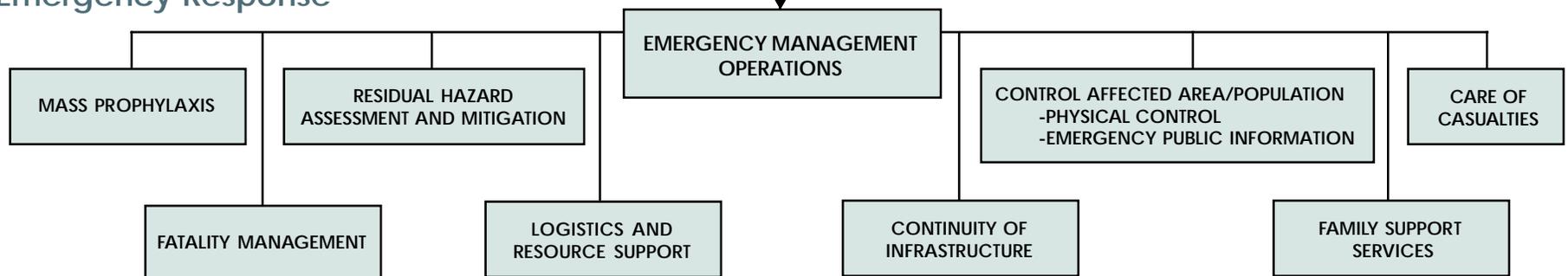


FIGURE 1- BW RESPONSE TEMPLATE COMPONENTS AND KEY DECISIONS

Characteristics of Bioterrorism

A large, covert BW terrorist event primarily would represent a public health *catastrophic medical emergency*, possibly involving tens of thousands of victims. ***The BW response must be led by local communities who are the first-line responders to this type of attack.*** Although the public health and medical community would be the most heavily involved in a response, other key local agencies such as the police and fire departments would have significant roles. While local and state emergency response plans are expected to be implemented initially, it is assumed that in the event of a significant BW terrorist act, those resources would be quickly exhausted. Local communities should plan to rely on their own resources for the first few days after a BW attack until mutual aid and state and federal assistance arrives. Resources from these agencies could include:

- Medical staff
- Equipment
- Pharmaceuticals
- Other support as needed

If a terrorist were to overtly use a package or device containing only a small amount of a biological warfare agent inside an enclosed facility, then the incident response might be more like a hazardous material (HAZMAT) type response incorporating biological response considerations with the complicat-

ing factor of malevolent actors/perpetrators. However, the focus of this guide is on a large, covert BW terrorist event.

A BW attack probably will never be just a local event — it will grow rapidly outside the boundaries of a single community, e.g., to surrounding communities and states. Many people come into a community for work or for other purposes, become sick and then return home outside the target community. Also, international airports located in the affected community could further the spread of disease to other parts of the United States and the world.

This guide is intended to present a practical approach for states and cities to use in planning for bio-terrorism based on BW IRP results. For information on how the federal government implements the Robert T. Stafford Disaster Relief and Emergency Assistance Act to assist state and local governments when a major disaster or emergency overwhelms their capabilities to respond, state and local emergency response officials should review the *Federal Response Plan* which is available through FEMA's Web site at <http://www.fema.gov/r-nr/frp/>. For a bio-terrorism scenario, the *Emergency Support Function #8 - Health and Medical Services Annex* and the *Terrorism Incident Annex* are of prime importance. Please note that requests for federal assistance under the *Federal Response Plan* are made by the state.

THE 13 COMPONENTS OF THE BW RESPONSE TEMPLATE

When responding to a biological attack, the timing of the response is critical. The following six elements of response must be well coordinated:

- Medical surveillance to detect the attack.
- Making quick, rapid and appropriate decisions.
- Implementing the pre-existing response plans.
- Rapid and appropriate distribution of prophylaxis.
- Ability to keep up with the flow of sick and “worried well” (people who have not actually been exposed to the agent but fear that they have).
- Ability of response system to receive and rapidly utilize outside help.

These six elements of response are key to minimizing the consequences of a biological attack. To assist state and local health departments with their preparation and planning for these response elements, this document presents 13 major response functions states and local communities should consider for inclusion in their Emergency Operation Plans. It is the opinion of the BW IRP team that the components described briefly below are the key components to an integrated BW response system.

1 MEDICAL SURVEILLANCE

Medical surveillance, the first component of the BW Response Template, should operate continuously to improve the chances of detecting unusual medical events sooner rather than later. This initial, non-specific detection of activity above an established

baseline would trigger other response actions and therefore is important to timely response. (Note: Communities should pay particular attention to disease outbreaks which are not endemic to their geographic area or when common outbreaks occur in uncommon seasons.) Several local communities now are monitoring hospital admissions, 911 calls and unexplained deaths as indicators of an unusual medical event. When baselines are exceeded, city health and emergency management officials will decide if an unusual event has occurred. If this is the case, they then would initiate the four *active investigation* components of the response template (see Figure 1). Medical surveillance can be expanded to actively poll emergency departments, pediatricians, infectious disease doctors, veterinarians and other infection-control practitioners to ascertain the context and possible cause of the non-specific indicator(s). The decision to initiate active investigation should have a low threshold, as these activities have modest cost and impact on the community. Moreover, such timely decisions would avoid delays in active and accurate investigation during actual events that reduce the effectiveness of emergency response in saving lives and reducing suffering.

Medical staff should be trained to be alert to unusual clusters of disease symptoms that are indicative of bioterrorist activity.

If a potential BW health problem arises, the medical and health community should notify local law enforcement and public health officials and share pertinent information such as suspected location of incident, current casualty count and approximate time/date of exposure.

1 MEDICAL SURVEILLANCE

Suggested Local Planning Actions and Items for Inclusion in Emergency Operation Plans (EOPs) and Standard Operating Procedures (SOPs):

- Identify department responsible for medical surveillance and reporting.
- Develop surveillance plan for detecting unusual medical events.
- Establish medical baselines.

made by the Centers for Disease Control and Prevention (CDC), the U.S. Army Medical Institute of Infectious Diseases (USAMRIID) or other qualified field laboratories.

If a potential BW health problem arises, the medical and health community should notify the senior local elected official, emergency manager and local law enforcement. Likewise, any selected infectious disease laboratory results that are reported to the public health department also should be reported to the senior local elected official, emergency manager and law enforcement.

1 MEDICAL SURVEILLANCE

Response Activities:

- Continuously monitor key indicators.
- Expand surveillance when key indicators exceed thresholds.
 - Poll emergency rooms.
 - Poll pediatricians.
 - Poll infectious disease doctors.
 - Poll infectious control practitioners.
 - Poll veterinary clinics.

2 MEDICAL DIAGNOSIS

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Identify department responsible for contacting and coordinating sample submission policies and procedures with CDC and USAMRIID
- Identify the process by which the public health department provides support to the criminal investigation

2 MEDICAL DIAGNOSIS

If medical surveillance indicates that an unusual event may be occurring, local officials should have established procedures for confirmation and definitive diagnosis of the unknown. Preliminary medical diagnosis of suspected biologic samples should be undertaken locally with samples sent for verification to qualified local, state or academic laboratories. Veterinary diagnosis also should be considered in the verification process. If initial diagnosis indicates a potential BW agent, validation should be

2 MEDICAL DIAGNOSIS

Response Activities:

- Undertake local clinical lab tests.
- Obtain initial diagnosis of illness.
- Coordinate with CDC and USAMRIID prior to shipping any samples.
- Confirm diagnosis and identify agent at CDC and USAMRIID.
- Obtain veterinary diagnosis (as applicable).

3 EPIDEMIOLOGICAL INVESTIGATION

An epidemiological investigation can determine, using a variety of tools including interviews and diagnoses, the distribution of cases and sources of disease outbreak. Such an investigation would provide an analysis of the collected data and support the development of recommendations for containment, prevention and treatment.

If an epidemiological investigation is initiated, law enforcement officials should be notified and provided with data collected as needed. This way, criminal investigators can visit the original site to collect data when epidemiologists identify the location of the disease source.

The key to successful epidemiological and criminal investigations of potential BW events is a good working relationship among law enforcement, epidemiologists and the public health department. Developing procedures to facilitate sharing of information among these agencies is highly recommended. Consideration should be given to the development of a common form to be used by both law enforcement and epidemiology personnel. This form should allow the sharing of necessary information while protecting the confidentiality of victims.

3 EPIDEMIOLOGICAL INVESTIGATION

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Identify departmental responsibility for epidemiological investigation.
- Determine method of report.
- Identify process and procedure for reporting suspicious disease patterns or BW health problems to law enforcement officials

3 EPIDEMIOLOGICAL INVESTIGATION

Response Activities:

- Case definition (detailed description of disease and pattern).
- Track distribution of cases, persons, place and time.
- Chart spatial and temporal course of the outbreak.
- Define population at risk and map initial victim locations.
- Identify source, mode of transmission and cause.
- Analyze risk factors (commonality).
- Analyze clinical and patient information, diagnosis and prognosis.
- Conduct interviews.
- Analyze clinical and environmental lab results.
- Make recommendations and provide decision support of containment, prevention and treatment measures.

3 EPIDEMIOLOGICAL INVESTIGATION

Response Activities (continued):

- Develop hypotheses regarding method and execution of BW attack.
- Communicate results.
- Conduct threat assessment and share information with other components.
- Work closely with criminal investigation team.
- Consider conducting a joint epidemiological and criminal investigation

4 CRIMINAL INVESTIGATION

The criminal investigation would be a joint effort involving many agencies and could complement the epidemiological investigation. It likely would entail conducting interviews with the sick in hospitals, fellow sick officers and others in the affected population groups. To facilitate these interviews, a checklist of basic questions to ask should be developed. The interviews can help determine the cause, perpetrators and other details of the attack.

Other types of evidence that would supplement interviews include biological or clinical samples, heating, ventilation and air conditioning samples, surface samples and food or water samples. Local communities should develop sampling protocols for law enforcement officials investigating potential bioterrorist events. These protocols should include coordination with the local laboratory to ensure appropriate specimen collection and handling.

If a potential BW health problem arises, sharing of the information described above between the health/medical community

and law enforcement officials may help in the apprehension of the responsible individuals/groups. Communities should discuss mechanisms to identify and share pertinent information with each other, paying particular attention to patient confidentiality and operational security issues. For a credible threat, law enforcement should notify predetermined public health officials. In addition, law enforcement would need to understand and have access to the appropriate personal protective equipment needed while conducting the investigation. Although several days may have passed from the time of the release until a BW attack is suspected, law enforcement would need to take the appropriate precautions, remembering the perpetrators still may be present, either at the scene or at nearby treatment centers. Safety concerns such as agent hazards, secondary devices and/or booby traps left at the scene should be considered when planning response procedures for the criminal investigation team.

In the event that a suspect or suspects may be apprehended, consider establishing a decontamination site with the appropriate medical support available.

A checklist could be developed for use in interviewing casualties and their family members, as well as for recording hotline tips from the general public. Those conducting the criminal and epidemiological investigations should also consider putting this information into a database that could be used for follow-up, modeling the spread of disease or profiling the suspects.

The coroner or medical examiner likely would be the key person providing support to the criminal investigation by sharing information obtained from his/her examination of the fatalities. The public health department or environmental agency responsible for environmental sampling will also provide information to the criminal inves-

tigation team. This information may include how the agent was disseminated, location, type of agent and quantity released.

Lastly, procedures should be established for baseline and post-incident medical screening for all personnel involved.

4 CRIMINAL INVESTIGATION

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Identify key agencies with which law enforcement officials should coordinate unified command activities.
- Develop protocols for the following situations to facilitate response to a BW threat.
 - Credibility threat assessment process (in coordination with FBI)
 - Recognition of warning signs and indicators of BW incidents
 - Detection and handling of secondary devices.
 - Interviewing potentially contaminated or infectious victims
 - Methods for collecting, handling, decontaminating, transporting, preserving and storing biological evidence, including maintaining the chain of custody
- Coordinate criminal investigation with epidemiological investigation.
- Determine how and when results are reported to the Emergency Operations Center.

4 CRIMINAL INVESTIGATION

Response Activities:

- Activate investigation task force teams (canvas, intelligence, crime analysis).
- Conduct interviews with sick in hospitals, airport employees, fellow sick officers, marine workers, etc.
- Collect evidence.
- Conduct investigation, identify, locate and apprehend suspects.

5 MASS PROPHYLAXIS

The results of the medical diagnosis, epidemiological and criminal investigations could be used by local officials to assess whether a major health event was occurring, to help determine the potential cause(s) and to identify the population at risk. Local officials could then make informed decisions on medical prophylaxis, treatment, containment and quarantine measures as required. Lastly, they could decide on the appropriate activation of an emergency operations plan and request outside assistance. These difficult decisions would drive the emergency response components of the plan. These decisions may need to be made on a presumptive basis and then acted on immediately to achieve timely prophylaxis and to keep pace with the onset of casualties.

Mass prophylaxis, the first *emergency response* component of the template, involves the distribution and medical application of appropriate antibiotics, vaccines or other medications in order to *prevent* disease and death in exposed victims. For example, giving antibiotics to people shortly after exposure to anthrax can significantly reduce the

occurrence of disease and save lives. However, the speed with which medical prophylaxis can be implemented effectively is critical to its success.

Application of medical prophylaxis requires identification of the population at risk. Because this identification cannot be verified immediately, treatment may have to be applied to a much greater number of people than those actually exposed. The “worried well” may exceed the number of exposed victims by a multiplier of 5, 10 or 15 according to some published reports. Distribution of medications could occur through existing medical institutions and through an emergency system such as the Modular Emergency Medical System (MEMS). Federal and state assistance most likely would be needed to support local response planning initiatives for mass prophylaxis.

In addition, local policy should be developed that provides priority emergency antibiotic prophylaxis for use by “essential” emergency personnel, including law enforcement personnel conducting the criminal investigation, in order to allay their fears and help ensure their continued presence during the response. A specific list of such personnel should be developed in advance. Should shortages develop during the early phases of the incident, the antibiotic issuance could be limited to a one- or two-day course of treatment pending identification of the agent. Medications for emergency responders should be provided from a stockpile separate from the general public resources to ensure their availability. Public acknowledgment should be made to avoid the appearance of impropriety.

Early coordination on decision-making regarding prophylactic treatment among all agencies, especially public health, medical,

law enforcement and emergency management is essential in a successful mass prophylaxis campaign.

5 MASS PROPHYLAXIS

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Determine departmental responsibility and plan for supply and dissemination of prophylaxis.
- Consider developing policies and procedures for sharing information between the criminal investigation team, the public health department and those responsible for mass prophylaxis.
- Identify points of contact for each area of support and establish lines of communication.

5 MASS PROPHYLAXIS

Response Activities:

- Activate prophylaxis distribution plan distributed through Neighborhood Emergency Health Centers (NEHC) (*which is described later in component #8*), community outreach or other means.
- Develop follow-up plans for addressing prophylactic regimes that require several administrations of vaccine or boosters.

6 RESIDUAL HAZARD ASSESSMENT AND MITIGATION

Residual hazard assessment and mitigation involves activities that would assess and protect the population from further exposure to potential environmental hazards. Normally, the risks from residual BW agents are small compared to those from the actual attack, but they still warrant attention once the more immediate threats have been addressed. Public health officials, coroners and/or medical examiners and criminal investigators would need to work together to mitigate residual hazards and identify potentially large numbers of fatalities. These tasks would be the shared responsibility of local, state and federal environmental and health agencies. Assessment and mitigation may include environmental sampling of air, water and soil, as well as surface swipes and insect and animal screening for the BW agent.

Vector and animal control measures may be used as applicable. Decontamination would be site specific and may be required for certain “hot spots” around the area of release or for the interior of buildings and other enclosures. Emergency operations plans likely do not specify the methods of decontamination, as these will be site- and agent-specific.

6 RESIDUAL HAZARD ASSESSMENT AND MITIGATION

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Determine departmental responsibility for hazard assessment and decontamination.
- Determine departmental responsibility for vector and animal control.
- Establish protocols for timely sharing of information among the key agencies involved and the criminal investigation team.

6 RESIDUAL HAZARD ASSESSMENT AND MITIGATION

Response Activities:

- Conduct environmental sampling (air, water, soil, surface swipes and insect and animal screening).
- Conduct local area control and decontamination.
- Perform vector and animal control measures

7 CONTROL OF AFFECTED AREA/POPULATION

Control of affected area and population is divided into two major sub-elements: 1) physical control, and 2) public information and rumor control. Together, these two elements help maintain order, inform the population and facilitate organized emergency response. Physical control includes crowd control and security at hospitals, emergency medical facilities, fatality han-

ding sites and other vital installations such as airports, utility sites, bridges and tunnels. In addition, activities that control the affected area also provide excellent opportunities for isolation and preservation of the crime scene, if one is identified. Managing the affected area also involves management of potential evidence, such as contaminated materials and victims.

Responders should wear proper protective equipment when working with potentially contaminated material and victims. When and if a hazardous area is defined, citizens should be protected appropriately.

Traffic management could provide ingress and egress control for essential personnel, equipment and residents within the affected city and to and from staging areas. The affected areas within the city could be patrolled to maintain security as warranted. For instance, in the case of a subway attack, only a small percentage of the city population might be exposed; however, this population could come from a wide geographic region. In this situation, patrol of affected residential areas probably would not be warranted. Conversely, in a scenario where an agent is sprayed in a major metropolitan area and carried via wind across the entire city, as much as ninety percent of the resident population could be incapacitated in certain areas and security patrol of such areas could be needed.

Public information and rumor control are vital for informing and instructing the population in ways that enhance emergency response and avoid panic. Activities could include establishing and operating a city hotline, providing information to the media and distributing self-help fact sheets. Strict management of information as well as ensuring that all information disseminated is timely and accurate are crucial activities of the command structure in order to prevent panic and maintain public cooperation.

The media should be considered an essential participant in disseminating official information and updates, as well as in gaining useful information for the criminal investigation (for example, photographs or videotapes of suspects).

7 CONTROL AFFECTED AREA/POPULATION

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Local police department should consider establishing physical security plans that address a potential biological terrorist event.
- Consider establishing and promulgating a policy that only public affairs officials talk to the press.
- Establish points of contact for local public affairs office with the police/fire departments and hospitals.

7 CONTROL AFFECTED AREA/POPULATION

Response Activities:

- Provide security at each hospital/medical facility.
- Provide security at Neighborhood Emergency Help Centers (NEHC). *The NEHC concept will be discussed in component #8.*
- Provide security at Acute Care Centers (ACC). *The ACC concept will be discussed in component #8.*
- Provide security at central processing and morgues.
- Provide ingress/egress control for essential personnel, equipment and residents.

7 CONTROL AFFECTED AREA/POPULATION

Response Activities (continued):

- Provide escorts for emergency equipment and personnel from staging areas.
- Patrol affected areas.
- Provide security at vital installations – airports, communication and utility sites, bridges and tunnels.
- Review existing emergency public information materials – revise/reproduce.
- Establish and operate local 1-800 hotline.
- Provide material to media (internet, TV, radio, newspapers).
- Activate emergency alert system.
- Conduct senior officials press conference.
- Establish and maintain Media Center.
- Conduct scheduled press briefings.
- Provide joint press releases.

8 MODULAR EMERGENCY MEDICAL SYSTEM (MEMS)-CARE OF PRESENTED CASUALTIES AND WORRIED WELL

Care of presented casualties and worried well along with medical prophylaxis form the backbone of the BW Response Template. Other components of the template support and enable these two. Significant support for these functions is available from the federal government and is outlined in the *Federal Response Plan*. Aid coordinated by FEMA and DHHS is outlined in the *Implementation* section of this document.

The worried well are individuals who believe that they have been exposed to a biological agent, when in fact they have not. They may magnify the number of patients by 5 to 15 times and will require triage and evaluation to distinguish them from the truly ill. Many will fall out of the patient count as their clinical status remains unchanged over time. Unfortunately, they will seek medical assistance during the most critical time of the incident, and thus, will impact the delivery of care to the victims of a biological attack. For example, in the case of the Aum Shinrikyo subway attack in Tokyo, the number of worried well was approximately 4500 of the 5500 casualties.

In order to manage this huge casualty load, the BW IRP team developed the Modular Emergency Medical System (MEMS) to address shortfalls in hospital space, equipment and medical personnel. The MEMS concept was developed to address the need of a BW response plan to expand and contract in size, based on casualty counts and acuity. Municipalities need a plan to receive large numbers of victims. The MEMS is an example of one way a municipality could begin to address this issue. Under the MEMS, public and private area hospitals would admit BW casualties until they approach full capacity while operating under their internal emergency operations plans. As the hospitals become full, local officials would determine that the medical emergency is overwhelming the community's medical care system and could decide on appropriate activation of a system similar to the MEMS, which is described below and is graphically represented by Figure 2.

Area hospitals would form their own internal emergency medical command centers (MCC) to coordinate all assigned sector health care operations. Acute care centers (ACCs) would be established in structures close to the area hospitals to provide definitive and supportive care to acutely ill BW patients who exceed hospital capacity.

The current health care management system includes public and private area hospitals, clinics, ancillary care organizations (such as the American Red Cross) and private physicians. These components could be integrated and expanded during emergency operations by activating planned components and applying additional resources.

Local clinics, schools and shopping centers of suitable size could be expanded into Neighborhood Emergency Help Centers (NEHCs) to provide the primary point of entry into the emergency medical system for BW patients and worried well and to distribute medical prophylaxis medications. Local volunteers could be used to assist the medical staff in these centers. Private medical doctors would send their BW patients and worried well to the NEHCs. Community outreach could be performed by police, firefighters, community health personnel and other officials to link home-bound patients to the NEHC.

If the acute care centers and clinics became overwhelmed because of the extreme numbers of casualties or are delayed in being set up, community outreach personnel would distribute information, appropriate medication (after victims were triaged by trained medical personnel) and medical supplies to victims at their homes. They also could provide limited medical care by mobilizing a citizen home care effort and augment NEHCs in quickly distributing medical prophylaxis.

Casualty relocation units would transfer non-BW hospital patients to remote locations in order to provide additional hospital space for BW patients. Only non-critical patients would be relocated. The patients could be moved by ground, water or air transports.

Thus, during catastrophic medical emergencies such as large scale bioterrorist attacks,

area hospitals, clinics and private medical doctors would forego their normal autonomy and begin functioning as an integrated system. Here, the acute care centers and NEHCs could be linked to the area hospitals' medical command centers, which would in turn be linked to the local Incident Command System/Emergency Operations Center. In an alternate structure, ACCs and NEHCs could be established as stand-alone units not associated with area hospitals. Coordination of these centers would then occur directly through the local Incident Command System/Emergency Operations Center.

The MEMS is expandable depending on the severity of the situation and the resources available within the affected area. By pre-designating the participating medical organizations by community sector and pre-selecting the locations for establishing the emergency medical centers, a city would be prepared to respond quickly and effectively to a BW event, a chemical weapons event or other emergencies involving catastrophic numbers of casualties. *Further, the community's MEMS could provide a framework into which mutual aid, state and federal resources could be quickly integrated to expand and sustain local emergency operations.*

An important aspect of this modular approach is the ability to expand and contract the number of modules as needed. As the modules become full, others can be opened, and as they begin to empty, the staff can be moved to supplement other modules. As patient medical needs change throughout the incident, so too can the modules change to accommodate them.

Although the MEMS draws on existing federal response plans, known medical procedures, existing medical assets and outside resources to create an integrated and effective response system, implementing the

MEMS requires thinking “outside-the-box” on the part of the local emergency management and health care communities. Agreement with local hospitals would need to be reached to assure they could serve as MCCs during an emergency. Similarly, other facilities such as schools would need to agree in advance to expand operations and serve as NEHCs (or other functions) during an actual response.

The rapid and large-scale expansion of facilities has a critical companion effect: the rapid and large-scale expansion of staffing needs. A large scale BW disaster would quickly overwhelm the existing medical staff, even in our largest and best-staffed cities. Therefore, until sufficient staff are available from mutual aid, state and federal support resources, cities may want to consider the use of “physician and nurse extenders” to cover medical staff shortfalls.

When using physician and nurse extenders, it is important to address the legal issues. These persons may include dentists, veterinarians, final-year medical students, nursing students and other medical specialists. These extenders could, through necessity, assume broader roles in providing medical care to mass casualties. Under the Emergency Support Function #8, DHHS may activate the National Disaster Medical System to provide Disaster Medical Assistance Teams and other medical professionals to assist in providing care. The medical legal standards of care issues must be identified to enable professionals to provide optimal care as the situation dictates. Cities should examine liability and workman’s compensation issues if physician and nurse extenders are used.

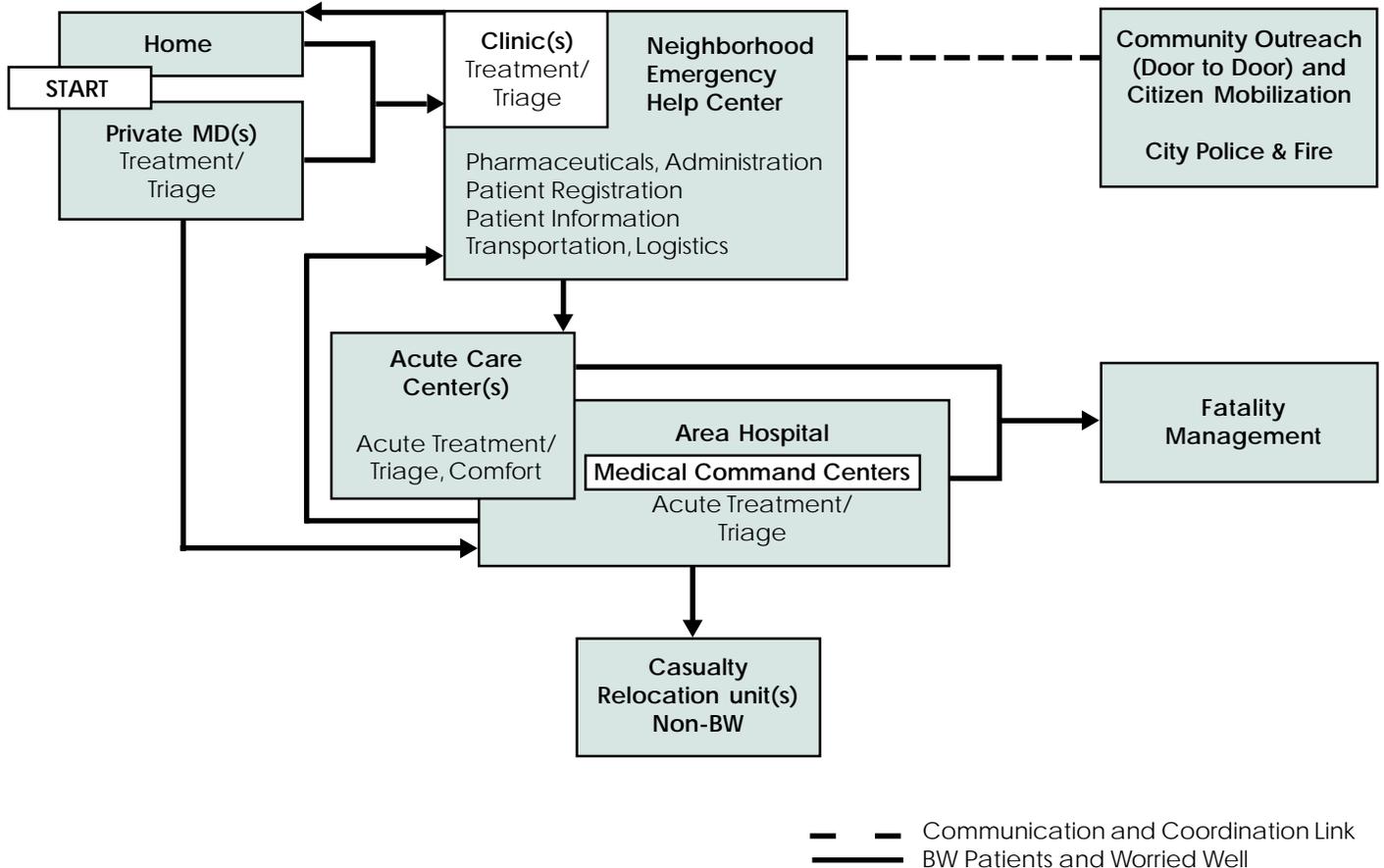


FIGURE 2 - MODULAR EMERGENCY MEDICAL SYSTEM

8 CARE OF PRESENTED CASUALTIES AND WORRIED WELL

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Create Modular Emergency Medical System (MEMS) or similar plan.
- Coordinate MEMS with all hospital Emergency Preparedness Plans (EPPs).
- Consider legal issues such as liability of providers and workman's compensation.
- Formulate plans to integrate mutual aid, state and federal assistance.
- Consider developing a detailed questionnaire for rapidly collecting victim identification and background information (such as where they were in the previous few days, etc.)

8 CARE OF PRESENTED CASUALTIES AND WORRIED WELL

Response Activities:

- Admit casualties until hospitals reach maximum capacity. Implement hospital disaster plan as maximum capacity is reached.
- Close hospitals to non-critical admissions.
- Provide notification of significant incoming casualties to affected personnel and facilities.
- Establish and operate Medical Command Centers (MCCs) at area hospitals.

8 CARE OF PRESENTED CASUALTIES AND WORRIED WELL

Response Activities (continued):

- Establish and operate Acute Care Centers (ACCs) to provide definitive and supportive care to acute patients.
- Establish and operate Neighborhood Emergency Help Centers (NEHCs) to provide triage, distribution of medical supplies and coordination of community outreach.
- Send worried well home.
- Send acutely ill to ACCs.
- Establish a transportation control center (dispatch, maintenance, fueling).
- Establish transportation staging areas (bus, ambulances, air, rail).
- Transport acute BW patients.
- Provide traffic route management.
- Establish methods for tracking patient's movements in the system.
- Allow law enforcement personnel to interview victims at medical facilities to support the criminal investigation.
- Share victim identification with law enforcement personnel to assist in locating them for later follow-up, if indicated.
- Establish community outreach by sectors.
- Conduct initial outreach by sectors (door-to-door sector survey, provide medical information).
- Conduct full community outreach with citizen home help mobilization.
- Activate non-infected patient relocation system.
- Identify destinations for patient relocations.

9 FATALITY MANAGEMENT

Medical prophylaxis and care of casualties according to established health protocols will reduce death and suffering following a BW attack. However, fatalities still are likely to occur and may occur in large numbers with a lethal agent like anthrax. Therefore, fatality management must be planned.

The template includes the use of morgues to provide rapid central processing of remains and the establishment of long-term storage facilities using refrigerated trucks, rail cars or other containers to hold remains until final disposition. Additionally, Disaster Mortuary Teams can be provided by the federal government through the Federal Response Plan. Local officials would need to make a decision on the final disposition of remains. Options for the final disposition of remains could include (1) mass cremation, (2) mass burial and (3) release of remains to families for normal disposition. Temporary interment is an option that might be used while awaiting final disposition.

Remains contaminated with biological agents could present health concerns and may need to be disposed of according to established protocols. Safe handling procedures will need to be established for criminal investigators handling BW fatalities, including those activities to identify the dead such as fingerprinting and photographing.

9 FATALITY MANAGEMENT

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Create fatality management plan (must deal with potential for overwhelmed city morgues and the religious concerns of relatives).
- Establish safe handling procedures for criminal investigators and other personnel who handle BW fatalities or are involved in identification of the dead (fingerprinting, etc.)

9 FATALITY MANAGEMENT

Response Activities:

- Maintain mortuary registry of similar deaths.
- Manage high volume of relatives seeking deceased relatives.
- Use morgues to provide central processing of fatalities.
- Establish long-term fatality storage facilities until final disposition.
- Determine final disposition for fatalities.
- Implement mass cremation option (incineration sites, record keeping, memorialization).
- Implement mass burial option (site location, record keeping, memorialization).
- Implement "release remains to families" option (record keeping).
- Implement temporary interment option.

10 EMERGENCY MANAGEMENT OPERATIONS

When local officials determine that a major health event is occurring, they will likely activate their emergency operations center (EOC). They might also implement an incident/unified command system. A unified medical branch could be established within this command structure, and representatives from local, state and federal agencies could be requested through the local EOC. The emergency operations plan, including application of medical prophylaxis and use of the modular emergency medical system, could be activated. Local officials could declare a state of emergency and request mutual aid from surrounding municipalities and the state. The state could then request assistance from the federal government. The key is early coordination among all departments and forging early relationships among police, medical practitioners, emergency management and public health officials. Planning and conducting joint training exercises are effective in preparing strong unified command structures. Activating the emergency public information system must be an early and continuing action throughout the response in order to help prevent panic, further injuries and deaths. Officials should consider establishing a Joint Information Center as soon as it is determined that a biological weapons incident may have occurred.

During an incident, the state could provide representatives to the local EOC and activate the state EOC. State officials could implement the state disaster plan, activate National Guard units and, if appropriate, make a state declaration of disaster and re-

quest a Presidential emergency declaration or disaster declaration and federal response assistance.

Coordination with federal response structures could become necessary. Once an FBI-led Joint Operations Center (JOC) is established, the state should be represented in the JOC's Command Group as well as in the Consequence Management Group. Local government should be represented in the Command Group and may be requested to participate in the Consequence Management Group. State and local representatives may wish to participate in, or coordinate with, the Joint Information Center. FEMA will provide liaison to the state EOC. Once a FEMA-led Disaster Field Office is established, the State Coordinating Officer should be represented there. At the scene, the FBI will participate in a unified command, and a Federal Forward Coordinating Team will fulfill a liaison function with the local unified command. See the *Terrorism Incident Annex* to the *Federal Response Plan* for more information.

10 EMERGENCY MANAGEMENT OPERATIONS

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Review local plans that call for activation of an EOC and make sure an "unusual medical event" triggers activation.
- Identify key stakeholders (FBI local agent) and develop training exercises to forge relationships in advance.

10 EMERGENCY MANAGEMENT OPERATIONS

Response Activities:

Local

- Activate local EOC – Implement incident/unified command.
- Activate unified medical branch.
- Request local/state/federal representatives for EOC.
- Implement emergency operations plan.
- Declare local state of emergency.
- Activate public affairs/emergency public information functions.

State

- Provide state representatives to local EOC and FBI JOC.
- Activate state EOC.
- Implement state emergency operations plan.
- Activate National Guard units.
- Announce state declaration of disaster.
- Request Presidential declaration of disaster.
- Activate public affairs/emergency public information functions.
- Appoint state coordinating officers.

Federal

- Provide federal representatives to local and state EOC.
- Activate FEMA regional operations center (ROC).
- Activate FEMA emergency support team (EST).
- Activate FEMA disaster field office (DFO).
- Activate and deploy the advance Emergency Response Team (ERT-A).
- Convene catastrophic disaster response group (CDRG).
- Request Presidential declaration of disaster under Stafford Act.
- Appoint federal, and defense coordinating officers.
- Activate FBI command post in the immediate area.

10 EMERGENCY MANAGEMENT OPERATIONS

Response Activities (continued):

Federal

- Activate FBI JOC.
- Activate FBI strategic information operations center (SIOC).
- Appoint FBI on-scene commander (OSC).
- Deploy FBI critical incident response group (CIRG) elements to assist OSC.
- Deploy biological tailored domestic emergency support team (DEST).

11 LOGISTIC AND RESOURCE SUPPORT

The logistic and resource support component of the BW Response plan would establish staging areas and distribution points for incoming personnel and supplies. It is likely that most if not all 12 of the Emergency Support Functions under the *Federal Response Plan* would be activated. Statements of needs and prioritization for equipment, personnel and services would have to be established. Supplies would be delivered to the response sites from the staging areas and distribution points. A central reception center would receive incoming mutual aid as well as state and federal support personnel and provide instructions, accreditation and assignments.

11 RESOURCE AND LOGISTIC SUPPORT

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Create and assign responsibility for resource support plan.
- Create and assign responsibility for logistic support plan.

11 RESOURCE AND LOGISTIC SUPPORT

Response Activities:

- Establish staging areas (air, ground, sea, rail) to receive and distribute incoming mutual aid, state, federal and military support.
- Establish procedures for distribution of supplemental aid.
- Operate transportation coordination centers.
- Develop statements of needs and prioritization for equipment, personnel and services.
- Provide local delivery to users from distribution points.
- Provide housing, feeding and sanitation to emergency responders initially until the American Red Cross arrives to assume this responsibility.

12 CONTINUITY OF INFRASTRUCTURE

The continuity of infrastructure component of the response template would activate local continuity of operations plans when disaster-related absenteeism exceeds critical thresholds. Critical infrastructure facilities would implement emergency staffing plans

to sustain response operations at a high tempo. Telecommunications would activate their emergency communication plan to establish priorities, call blocking and cellular augmentation. Electrical power generation, water and transportation would activate their emergency staffing plans as required based on absenteeism. Sanitation would augment disposal of biohazard material and provide sanitary facilities and pest control at Acute Care Centers and other emergency facilities.

12 CONTINUITY OF INFRASTRUCTURE

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Assign responsibility for completion of a local Infrastructure Plan.

12 CONTINUITY OF INFRASTRUCTURE

Response Activities:

- Activate Continuity of Operations Plans (COOP) when absenteeism exceeds the critical threshold.
- Close business offices; minimize contact with the public.
- Maintain essential operations.
- Activate employee information network.
- Identify essential personnel to EOC and seek prioritized treatment.
- Activate mutual aid plans.
- Implement emergency services staffing plan.
- Use non-conventional resources to transport response personnel (bus, taxi, private sector).
- Prepare situation updates/ briefings/ reports.

12 CONTINUITY OF INFRASTRUCTURE

Response Activities (continued):

- Provide critical incident stress management and support services/counseling for responders' families (daycare, transportation, assistance, etc.).
- Activate emergency communication plan (prioritization, call blocking).
- Activate telecommunications emergency staffing plan.
- Establish cellular augmentation.
- Activate electric power, water and transportation emergency staffing plans.
- Augment disposal of biohazard material (augment private industry disposal services).
- Augment sanitary facilities at ACCs and other emergency facilities.
- Augment pest control at ACCs and other emergency facilities (augment private industry services).

13 FAMILY SUPPORT SERVICES

In addition to local, state and federal assistance and victim and family support services, the American Red Cross can provide information hotlines and implement central coordination of volunteer service organizations. Victim and family support services would include mutual aid assistance from surrounding communities. Good hospitality towards families should promote public cooperation with law enforcement officials conducting the criminal investigation. Consider using the same checklists developed for investigators when talking with families. This would provide consistency in data gathering regardless of who interviewed the individual(s).

13 FAMILY SUPPORT SERVICES

Suggested Local Planning Actions and Items for Inclusion in EOPs and SOPs:

- Hospital Emergency Preparedness Plans should reference local emergency response plans for family support services.

13 FAMILY SUPPORT SERVICES

Response Activities:

- Use existing public information system(s) to provide family support services information to the community.
- Implement central coordination of volunteer service organizations.
- Provide family non-medical assistance service.
- Conduct next of kin notification.
- Perform crisis counseling.
- Provide logistic support to families.
- Provide legal services.
- Provide insurance information and assistance.
- Provide translation services.
- Seek State Department liaisons for foreign victims.
- Implement state/federal assistance programs.
- Activate/operate disaster assistance center.
- Provide temporary housing assistance.
- Provide individual and family financial assistance.
- Conduct community memorial services.
- Provide grief counseling.

IMPLEMENTATION

A local community can prepare to respond to a biological incident or other catastrophic medical emergency through planning. Additional costly infrastructure and equipment are not necessary. Improved surveillance of early indicators of a disease outbreak would require an ongoing, but not a large effort. A community's key first steps in developing a response plan are to engage the local health community in the planning process and to obtain their support to function as an integrated emergency medical system during such an emergency. The municipality and medical community could then pre-designate the roles of hospitals, clinics and facilities within that system. Responsible agencies and teams could likewise be designated to plan the response activities for the other elements of the response template. The local community also could include biological response exercises as a part of their annual emergency/disaster exercise program. A community then would be prepared to respond quickly to a biological incident and establish a framework into which mutual aid, state and federal resources would be efficiently integrated.

There are many resources available to support a community that has been attacked by terrorists using a BW agent. The state can *coordinate and mobilize* intrastate and interstate mutual aid, National Guard and federal support for a community responding to a BW attack. Communications and coordination between local, county, region, state and the federal government are critical for obtaining timely and effective support. States also can mobilize statewide communications and notify the medical community, e.g., hospitals and emergency medical services (EMS), throughout the state and in surrounding states. Additionally, the governor can declare a state of emergency and

can suspend state rules and regulations during the emergency. The state can help control rumors by coordinating public information throughout the state. State emergency public information systems can be used to rapidly disseminate information statewide. The flow of requests for support is shown in Figure 3.

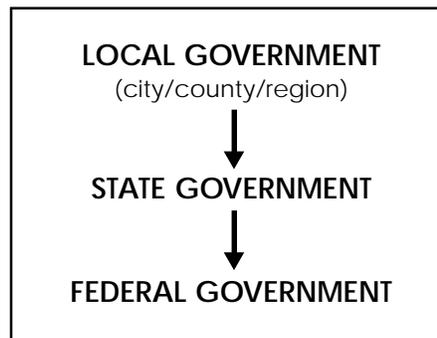


FIGURE 3 - FLOW OF REQUESTS FOR SUPPORT

Examples of state support to cities include:

- Mobilize EMS providers from outside the local community
- Coordinate fatality management and disposition of bodies
- Waive or relax state regulations in an emergency
 - Hospital regulations
 - Vaccinations and prophylactic drugs
- Authorize local communities to use state-owned facilities
- Acquire pharmaceuticals from vendors

Local communities, states and federal agencies should work *jointly* on planning and exercising for a major catastrophic medical emergency to include a terrorist BW event. They should identify key linkages. Due to limited resources available in small cities and towns, states should plan to provide sig-

nificant levels of support to many of these communities, especially in rural areas.

The key reference for local and state governments to use in this planning process is the *Federal Response Plan (FRP)*. The *FRP* outlines how the federal government implements the Robert T. Stafford Disaster Relief and Emergency Act to assist state and local governments when a major disaster or emergency overwhelms their capability to respond effectively. The *FRP* describes the policies, planning assumptions, concept of operation, response and recovery actions, and responsibilities of 27 federal departments and agencies, including the American Red Cross, that guide federal operations following a Presidential declaration of a major disaster or emergency. The *FRP* has proven to be an effective framework for coordinating delivery of federal disaster assistance to state and local governments. The document can be obtained from FEMA's Web site at <http://www.fema.gov/r-n-r/frp/pdfs.htm>.

When confronted with a major public health disaster or emergency, state and local governments will need to lead the effort without federal support for at least the first 24 hours. Communities should look at the resources that exist in their community and the surrounding area. Once they have identified the potential gaps, they can make plans to fill those gaps in the event of a major disaster. As with any catastrophic emergency, regional and state support should not be eliminated from the discussion, as such aid will arrive faster. The primary federal agency responsible for directing the assistance provided through *Emergency Support Function (ESF) #8* is the Department of Health of Human Services (DHHS). The DHHS Regional Health Administrators, as the operating agents, are responsible for directing regional *ESF #8* activities. A Regional DHHS office will coordinate with state and local public health officials to determine current medical requirements. *ESF #8* will utilize resources prima-

rily from within DHHS including support agencies identified in the *FRP* and the National Disaster Medical System (NDMS), a nationwide mutual aid network that coordinates support from federal agencies, pharmaceutical suppliers, hospital supply vendors and the National Foundation for Mortuary Care. *ESF #8's* framework provides for support functions that pertain not only to a medical disaster or emergency, but also to a biological terrorist attack. This framework includes:

- 1. Assessment of Health/Medical Needs**
– Lead DHHS agency: Office of Public Health and Science/Office of Emergency Preparedness/National Disaster Medical System (OPHS/OEP/NDMS). Mobilize and deploy an assessment team to the disaster area to assist in determining specific health/medical needs and infrastructure needs.
- 2. Health Surveillance** – Lead DHHS Agency: Centers for Disease Control and Prevention (CDC). Assist in establishing surveillance systems to monitor the general population, carry out field studies and investigations, monitor disease patterns and potential disease outbreaks and provide consultations on disease precautions.
- 3. Medical Care Personnel** – Lead DHHS Agency: OPHS/OEP/NDMS. Provide Disaster Medical Assistance Teams (DMATs) and individual public health and medical personnel to assist in providing care. DMATs can provide triage, medical or surgical stabilization, and continued monitoring until patients can be evacuated to locations where they will receive definitive care. In addition to DMATs, Active Duty, Reserve, and National Guard units can be deployed as needed for casualty clearing or staging, and also for other missions.

- 4. Health and Medical Equipment and Supplies** – Lead DHHS Agency: OPHS/OEP/NDMS. Provide health and medical equipment and supplies, including pharmaceuticals and biological products in support of DMAT operations and for restocking health and medical care facilities. CDC is taking an ever increasing role in the stockpiling of pharmaceuticals for the federal government.
- 5. Patient Evacuation** – Lead DHHS Agency: OPHS/OEP/NDMS. Provide for movement of seriously ill or injured patients from the area affected by a major disaster or emergency to locations where definitive medical care is available. NDMS evacuations will be accomplished primarily using resources of DoD.
- 6. In-Hospital Care** – Lead DHHS Agency: OPHS/OEP/NDMS. Provide definitive health care to victims who become seriously ill as a result of a BW incident. For this purpose, NDMS maintains a nationwide network of voluntarily pre-committed, non-federal acute care hospital beds in the largest U.S. metropolitan areas.
- 7. Worker Health/Safety** – Lead DHHS Agency: CDC. Assist in assessing the health and medical effects of biological exposures on the general population, collecting and analyzing relevant samples, advising on protective actions related to direct human and animal exposure, providing technical assistance on medical treatment and decontaminating biologically injured victims.

- 8. Public Health Information** – Lead DHHS Agency: CDC. Provide public health and injury prevention information for transmission to the population located in the areas affected by a BW incident.
- 9. Victim Identification/Mortuary Services** – Lead DHHS Agency: OPHS/OEP/NDMS. Provide NDMS Disaster Mortuary Teams (DMORTs), temporary morgue facilities, fingerprint/dental/forensic pathology identifications and disposition of remains.

While the federal government can provide support personnel and supplies, arrangements for medical transportation and facilities should be made at the most local level possible. Normally, local transportation requirements are to be handled by local authorities. If local medical transportation resources are inadequate, then county and State resources should be used to support the local community. If it is determined that State resources are inadequate to meet the requirements, a request for federal medical transportation assistance will be coordinated at the national level through the use of the patient evacuation component of NDMS.

By leveraging existing state and federal resources and plans, local health departments can create a strong response framework for a modest cost. The local community's main effort would be to prepare and exercise response plans and protocols for a catastrophic medical emergency and provide facilities and transportation. Such efforts contribute to establishing a framework that can incorporate mutual aid, state and federal assistance.

CONCLUSION

This planning guide is the result of an analysis of domestic response to an act of biological terrorism. The approach presented represents an integrated, multi-agency, local, state and federal effort to improve domestic response to a biological terrorist incident.

Readers are encouraged to use the portion(s) of the guide that enhance their current Emergency Operations Plans and SOPs. It is important that communities build their planning effort from existing capabilities and plans. This guide and the supporting documentation referenced previously are also useful in providing a convenient starting point for local communities to plan and implement their own BW response system. Local planning before an incident and rapid implementation following an incident will improve the ability of a locality to cope with a major BW terrorist attack.

Imperative to the successful implementation of the BW Response Template is the approach that it will not function as a series of disassociated and separate components. Rather, it must function as a full and integrated system. The best strategy in preparing for an effective response to BW terrorism would be to effectively manage existing resources to accommodate the complexities of a BW attack. Existing emergency response systems could and should be leveraged when crafting BW response plans. A state and community's main effort would be to prepare their response plans and protocols for a catastrophic medical emergency and address ongoing surveillance procedures. It is with this approach in mind that the BW IRP Team created this planning guide for local and state governments' use.

The most challenging aspect of coping with a large BW incident will be timing the emergency response to keep pace with the dynamics of casualties and needed prophylaxis. There will likely be a small window of opportunity between identification of the medical problem and the advent of peak levels of casualties. Further, any delay in the application of appropriate prophylaxis may cost additional lives in the case of a lethal agent such as anthrax. These considerations drove a response template that is based on expanding and re-orienting local medical capabilities to immediately begin coping with the crisis. Communities may not have the personnel resources to staff for the numbers of victims requiring medical care. However, with planning, they can quickly address those needs. When state, regional and federal assets arrive, they can immediately augment the local response and achieve integrated, enhanced medical capabilities.

Considering the potential magnitude of casualties and the associated scale of response, a competently conducted BW attack against a domestic locality would truly constitute a local crisis with national implications. The full magnitude and diversity of the required response will necessarily draw from and stress state, regional and national-level assets.

An organized, effective emergency response plan to a large-scale BW attack would also be applicable to any catastrophic medical emergency. Thus, adaptation of the concepts and components in this guide would enhance overall local, state and national emergency preparedness.

Work is underway to fill knowledge gaps and further improve the BW response template presented in this document. Components of the Modular Emergency Medical System are being field tested to demonstrate their effectiveness. A decision tree is being assembled to help city officials anticipate and make the difficult decisions needed to effectively cope with a biological incident. A Responder Assets Management System (RAMS) software package is also being tested

that could be used by communities on a daily basis for routine emergency management functions such as timekeeping. The RAMS system will also incorporate the BW Response Template for use by communities in planning, establishing and exercising their biological response capabilities. As tests are completed and emergency responders and medical personnel offer suggestions, the BW Response Template will be updated and this interim guide reissued.

POINTS OF CONTACT FOR PLANNING ASSISTANCE

Domestic Preparedness Helpline:

1-800-368-6498

- Source for copies of Vol. I and II of the 1998 Summary Report on BW Response Template and Response Improvements

Domestic Preparedness Website:

<http://www.nbc-prepare.org/>

- Online source for the 1998 Summary Report on BW Response Template and Response Improvements
- Information fact sheets on training, exercises, and equipment.
- Links to related sites including federal partners of the DP Program, Chemical Weapons Improved Response Program and the Rapid Response Information System

National Domestic Preparedness Office Website:

<http://www.ndpo.gov/>

- Information for emergency responders on training, equipment, exercises, planning, information sharing, and health/medical services

Department of Health and Human Services:

<http://www.dhhs.gov/>

1-877-696-6775

Federal Emergency Management Agency

<http://www.fema.gov/>

(202) 646-4600

Department of Defense

<http://www.defenselink.mil/>

(703) 697-5737

Federal Bureau of Investigation

<http://www.fbi.gov/>

(202) 324-3000

Environmental Protection Agency

<http://www.epa.gov/>

(202) 260-2090

Department of Energy

<http://www.doe.gov/>

(202) 586-5000

Department of Agriculture

<http://www.usda.gov/>

(202) 720-2791

Centers for Disease Control and Prevention

<http://www.bt.cdc.gov/>

<http://www.cdc.gov/>

(404) 639-3311

National Domestic Preparedness Office

<http://www.ndpo.gov/>

(202) 324-9026

